

CLAIMS

1. Transport system, comprising
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- a transport track (9) formed by at least one running rail (1, 2),
 - at least one vehicle (3) to be transported, and
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- a running device connected to each vehicle and arranged on the said at least one running rail so as to be able to run thereon, the vehicle (3) provided with the running device having a resistance to running on the said at least one rail (1, 2),
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- the said transport track (8, 9) having at least one descending track section (14, 14', 14'', 14''') having sufficient slope so that the said resistance to running of each vehicle is overcome, each vehicle thus running on the said at least one descending section by simple gravity,
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- characterised in that the transport track has a starting point (10) and an arrival point (11) having an altitude equal to or higher than the starting point, and comprises several sections of descending track (14', 14'', 14''') between which there is in each case arranged a section of ascending track (12', 12'', 12''') on which each vehicle provided with the running
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- device is driven by a driving device, in that the slope of each section of descending track being insufficient to produce a continuous acceleration of the said at least one vehicle (3) on the said at least one running rail (1, 2), each vehicle having there a substantially constant speed, balanced by the said resistance to running with other resistances added, such as the
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- resistance to air of the vehicle (3), the transport track (9) having a route along which no vehicle at any point is raised higher than the altitude that

the vehicle would have at this point on the transport track having a single descending section (14) provided with the above-mentioned slope between the starting point and the arrival point.

5 2. Transport system according to claim 1, characterised in that the above-mentioned slope is at least 3/1000, preferably at least 4/1000.

3. Transport system according to one or other of claims 1 and 2, characterised in that the above-mentioned slope is constant over each
10 descending section.

4. Transport system according to any one of claims 1 to 3, characterised in that the constant speed of the said at least one vehicle on the descending sections is around 30 to 50 km/h, preferably around 40 km/h.

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5. Transport system according to any one of claims 1 to 4, characterised in that the driving devices drive each vehicle on the ascending track sections at a speed equal to the above-mentioned constant speed.

20 6. Transport system according to any one of claims 1 to 5, characterised in that the transport track comprises, at least on some sections, support means (6) for an overhead rail (1, 2) and in that each vehicle is suspended from this overhead rail by the running device.

25 7. Transport system according to any one of claims 1 to 6, characterised in that the said at least one vehicle is a container (3) to be transported which has a volume with standard overall dimensions, and in that the running device is fixed to the container in a manner that can be folded in the above-mentioned volume, in the idle position of the container.

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8. Transport system according to any one of claims 1 to 7, characterised

in that it transports several vehicles on the transport track and in that it comprises means of balancing the speed of two successive vehicles, having the effect of maintaining the distance between the vehicles.

- 5 9. Transport system according to claim 8, characterised in that the means of balancing the speed of two successive vehicles comprise at least one endless cable returned freely in a loop by pulleys along the transport track and clamps arranged on each vehicle to grip the cable and drive the latter during its transportation.

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10. Use of a transport system according to any one of claims 1 to 9, for transporting vehicles over long distances making use parsimoniously of the potential energies, comprising a reading of the relief between the departure point and the arrival point and a determination of the route of
15 the transport track on the basis of this reading, so that it has the said slope on the said descending sections and a minimum number of ascending sections.

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